

CLAIMS

1. A digital still camera with an image sensor comprising:
an exposure controller that exposes said image sensor
5 such that a series of still images is consecutively captured,
a series of one frame worth of image-pixel signals,
corresponding to the series of still images, being read from
said image sensor in order;

a signal processor that generates a series of one frame
10 worth of color image signals in accordance with the series
of one frame worth of image-pixel signals, each divided into
a red color signal component, a green color signal component
and a blue color signal component;

a color temperature setter that defines a standard color
15 temperature corresponding to illuminating-light, and defines
at least one shifted color temperature, which is different
relative to said standard color temperature by a given amount;

a color balance adjuster that adjusts a relative color
balance with respect to the red, green and blue color signal
20 components in each of the series of one frame worth of color
image signals, in accordance with said standard color
temperature and said at least one shifted color temperature;
and

a recording processor that records at least one of the
25 series of one frame worth of color image signals, adjusted

with respect to the relative color balance, in a recording medium detachably installed in said digital still camera,

wherein said color balance adjuster adjusts the relative color balance, by changing the color temperature in each of the series of one frame worth of color image signals.

2. The digital still camera of claim 1, further comprising: a color temperature sensor that detects a color temperature of said illuminating-light,

wherein said color temperature setter defines a color temperature detected by said color temperature sensor as said standard color temperature.

3. The digital still camera of claim 1, further comprising: a color temperature memory, in which a plurality of color temperatures are stored as data; and

a color temperature selector for selecting one color temperature from the plurality of color temperatures, said color temperature selector being operated by an operator,

wherein said color temperature setter defines a color temperature selected by said color temperature selector as said standard color temperature.

4. The digital still camera of claim 1, wherein said color balance adjuster adjusts a gain to said red color signal component and a gain to said blue color signal component, by multiplying a R-gain coefficient of said red color signal component and a B-gain coefficient of said blue color signal

component by said red color signal component and said blue color signal component, respectively,

wherein said color temperature setter defines a red standard-value of the R-gain coefficient and a blue standard-value of the B-gain coefficient, corresponding to
5 said standard color temperature, such that a ratio of said red, green and blue color signal components generally become "1:1:1" with a white-object, and

wherein said color temperature setter defines a value
10 of the R-gain coefficient and a value of the B-gain coefficient, corresponding to said at least one shifted color temperature, to one of a smaller value and a larger value respectively, compared to said red standard-value and said blue standard-value, and a larger value and smaller value
15 respectively, compared to said red standard-value and said blue standard-value.

5. The digital still camera of claim 4, wherein said standard color temperature and said at least shifted color temperature are represented by a reciprocal of correlated color
20 temperature,

wherein said color temperature setter defines the R-gain and B-gain coefficients corresponding to said standard color temperature in accordance with a relationship between said standard color temperature and said red and blue
25 standard-values of the R-gain and B-gain coefficients, and

wherein said color balance adjuster defines values of the R-gain and B-gain coefficients, corresponding to said at least one shifted color temperature, by utilizing said relationship.

5 6. The digital still camera of claim 5, wherein said color temperature setter defines at least two shifted color temperatures, such that a value-interval between a color temperature and adjacent color temperature, among said standard color temperature and said at least two shifted color
10 temperatures, becomes a generally constant interval.

7. The digital still camera of claim 6, wherein said color temperature setter defines a first shifted color temperature and a second shifted color temperature, said first shifted color temperature being larger than said standard color
15 temperature by a given shifting-amount, the second shifted color temperature being smaller than said standard color temperature by said given shifting-amount.

8. The digital still camera of claim 1, further comprising:
an image-memory for temporarily storing the series of
20 one frame worth of color image signals, adjusted with respect to the relative color balance,

wherein said recording processor selectively records at least one of the series of one frame worth of color image signals, stored in said image-memory, in said recording
25 medium.

9. The digital still camera of claim 1, further comprising:
an image-memory that temporarily stores the series of
one frame worth of color image signals, adjusted with respect
to the relative color balance, respectively; and

5 a display processor that displays a series of reproduced
still images, which are reproduced from the series of one frame
worth of color image signals stored in said image-memory, on
a display provided on said digital still camera; and

an image selector for selecting at least one image to
10 be recorded from the series of reproduced still images, said
image selector being operated by an operator;

wherein said recording processor selectively records
at least one frame worth of color image signals, corresponding
to a reproduced image selected by said image selector, in said
15 recording medium.

10. The digital still camera of claim 9, wherein said display
processor selectively displays one reproduced image from the
series of reproduced still images on said display.

11. The digital still camera of claim 9, wherein said display
20 processor displays all of the series of reproduced still images
on said display simultaneously.

12. A white balance adjustment apparatus incorporated in
a digital still camera with an image sensor, a series of one
frame worth of color image signals being generated on the basis
25 of a series of one frame worth of image-pixel signals read

from said image sensor in order, said white balance adjustment apparatus comprising:

5 a color temperature setter that defines a standard color temperature corresponding to illuminating-light, and defines at least one shifted color temperature, which is different relative to said standard color temperature by a given amount; and

10 a color balance adjuster that adjusts a relative color balance with respect to red, green and blue color signal components in each of the series of one frame worth of color image signals, in accordance with said standard color temperature and said at least one shifted color temperature;

15 wherein said color balance adjuster adjusts the relative color balance, by changing the color temperature in each of the series of one frame worth of color image signals.